ABSTRACT OF THE DISCLOSURE

An arrangement is provided for using a phoneme lattice for speech recognition and/or keyword spotting. The phoneme lattice may be constructed for an input speech signal and searched to produce a textual representation for the input speech signal and/or to determine if the input speech signal contains targeted keywords. An expectation maximization (EM) trained phoneme confusion matrix may be used when searching the phoneme lattice. The phoneme lattice may be constructed in a client and sent to a server, which may search the phoneme lattice to produce a result.